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CARRIERS IN THE GULF: A DOCTRINE BASED ASSESSMENT

by

H. Denby Starling II

Commander, U.S. Navy

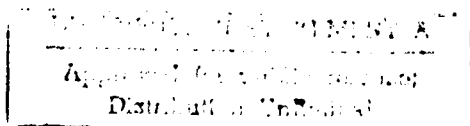
A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: H. Denby Starling II

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# CARRIERS IN THE GULF: A DOCTRINE BASED ASSESSMENT

## CHAPTER 1

### INTRODUCTION

In the fifty years since Halsey's fast carrier force roamed the Pacific, the aircraft carrier battle group has been the jewel in the crown of America's naval forces. To many, the aircraft carrier and its embarked air wing are the very embodiment of American military might. As the fall of the Berlin Wall brought increasing pressure to reduce our overseas commitment of forces, the aircraft carrier battle group (CVBG) appeared poised to assume an even greater role in our national defense posture. The CVBG, a mobile, sustainable military airfield, fit perfectly into the new national military strategy of "forward presence" and "crisis response."

Operations *Desert Shield* and *Desert Storm* presented the Navy with the opportunity to show that these forces represented money well spent. In all, eight CVBGs would participate. Six would fight for the duration of the war, the first time six carriers had served under a single commander since World War II. Four CVBGs would operate from within the restricted confines of the Arabian Gulf, where no aircraft carrier had been since 1974.<sup>1</sup>

Early post-war reports were glowing. The Navy reported that "the carriers and their battle groups contributed significantly to coalition air dominance...."<sup>2</sup> General Schwarzkopf credited the carriers with "one third of all the air missions flown during Desert Storm."<sup>3</sup>

But as the post-war evaluations began, other sources were not as lavish in their praise. For example, *Armed Forces Journal International* reported that

even though half of all its carrier forces were committed to the Gulf War, the US Navy was able to

account for only 17% of all the fixed wing attack missions flown against Iraqi forces. Important as it was, the Navy's relatively small contribution to the Gulf air war raises anew questions about the effectiveness of naval air power compared to its cost.<sup>4</sup>

The success of Operations Desert Shield and Desert Storm has validated the joint warfare concept. In the future, US forces engaging in conflict of almost any nature will do so under the aegis of a unified commander, who will tailor his forces to best accomplish his mission. One of the most important choices facing this commander may be whether he chooses to rely on carrier based or land based air power. For this reason, an accurate assessment of the carrier battle force's (CVBF) capabilities, as demonstrated by their performance in combat, is essential. This paper assesses the role played by the CVBF in the Gulf War. It does so based on the aircraft carrier's doctrinal roles and missions, rather than by the more conventional method of statistical comparisons.

Chapter II presents historical background and develops a framework for a doctrine based evaluation of CVBF performance. Chapter III examines CVBF employment during the Gulf War, how performance fit the doctrine and the campaign strategy, and CVBF unique contributions. The final chapter draws conclusions and offers recommendations concerning the near term options for future employment of the CVBG in joint/combined operations.

## CHAPTER II

### A FRAMEWORK FOR ASSESSMENT

At the very heart of war lies doctrine. It represents the central beliefs for waging war in order to achieve victory....It is building material for strategy. It is fundamental to sound judgement.

General Curtis E. Lemay, USAF

Military leaders must understand the nature and utility of doctrine. Military doctrine presents fundamental principles that guide the employment of forces.<sup>1</sup>

Joint Pub 1

The current debate over the utility of carrier based air versus its land based counterpart is not new. Joint air operations in every US conflict since World War II have been characterized by inter-service haggling over control of air assets and post-war disputes over "who did best." These disputes are more virulent in times of decreasing military budgets and are more often aimed at preserving or increasing a particular service's share of dwindling resources than in preserving a particular warfighting capability.

World War II. MacArthur's advance through the South Pacific as well as Halsey's island hopping campaign through the Central Pacific would have been impossible without carrier based aviation. In support of these campaigns, naval aviation was employed much as it would be today: strategic bombardment as a prelude to invasion, achievement of air superiority over the battlefield, close air support and battlefield area interdiction in support of ground operations. In some operations, such as the Philippines, naval and ground based air components were used in the same area of operations, but the real strength of carrier based air was its mobility. It

could reach places that land based air could not. Land based air depended on carrier based air for the conquest of airfields from which to deploy. Their capabilities were cumulative and complimentary.

Yet despite the synergistic success achieved by carrier and land based air forces during the war, the post-war introduction of the long range B-36 led Air Force officials to argue that carrier aviation was obsolete, and that all US aviation assets should be united under a single service. The Navy argued just as forcibly for retention of what they saw as a distinctly maritime capability best managed by naval officers. Two years of bitter controversy culminated in Congressional hearings, where the "Revolt of the Admirals" resulted in the relief for cause of the Chief of Naval Operations.<sup>2</sup> Naval aviation was saved as a separate entity, however, and less than one year later, carrier based aircraft would be the first US combat aircraft in the skies of North Korea.

Korea. The Korean War again found carrier air involved not only in joint, but combined, operations. USS Valley Forge and the British carrier HMS Triumph, as part of Task Force 77, flew the first strikes of the war into North Korea.<sup>3</sup> During the conflict, carrier aircraft from three countries (the US, England and Australia), would fly over 167,000 sorties (primarily ground attack) under UN command.<sup>4</sup>

Joint air operations were far from harmonious. In the early stages of the war, as the Eighth Army perimeter collapsed toward Pusan, General MacArthur directed that Fifth Air Force would coordinate all air support requests, including those for the Navy. Despite this direction, coordination between TF 77 and the USAF/US Army Joint Operations Center (JOC) was lacking. Insufficient staff integration and communication difficulties between the JOC and TF 77 onboard Valley Forge seemed to presage the Desert Storm AFCENT/NAVCENT staff squabbles. Disagreements over doctrine, roles, and



missions continued to some extent for the duration of the conflict.<sup>5</sup>

Vietnam. The first air strikes of the Vietnam War were flown by carrier based aircraft (Operation Pierce Arrow) in retaliation for North Vietnamese attacks on the US destroyers Maddox and Turner Joy.<sup>6</sup> The size of the air forces in theater increased dramatically as the United States instituted Rolling Thunder, the strategic bombing campaign against North Vietnam. Theoretically to make the air war more manageable, Vietnam was divided into "route packages (RP)." The southernmost RP was assigned to the South Vietnamese Air Force, those to the west and north of Hanoi to USAF aircraft operating out of Thailand. The RPs south and east of Hanoi belonged to the Navy, where the proximity of the carriers to coastal targets could be used to greatest advantage.<sup>7</sup>

Throughout the war, target lists were approved at the President/SECDEF level and the individual services managed operations within their own route packages. In effect, the Navy, Air Force, Marine Corps and Strategic Air Command conducted four separate air wars.<sup>8</sup> Thus, while more aircraft were operating in a single theater than at any time since World War II, operations were actually less "joint" than they had been in Korea. Sortie count became the measure of effectiveness between the Navy and Air Force, to the point where some planes were launched with less than full bomb loads to increase the sortie count. In 1966, one anonymous Air Force pilot wrote to Aviation Week that

There is nothing more demoralizing than the sight of an F-4 taxiing out with nothing but a pair of bombs nestled among its ejector racks. However, it looks much better for the commander and the service concerned to show 200 sorties on paper, even when 40 or 50 would do the same job.

Recalled one navy commander, "it was a bean counting kind of war."<sup>9</sup>

Post-Vietnam to the Present. Not until Operation Desert Storm would US forces again find themselves involved in major joint/combined air operations. In the intervening years, those air operations that were conducted were primarily single service evolutions (Navy: Grenada, Lebanon, Libya and Iran. Air Force: Panama). The exception was Operation El Dorado Canyon, the joint USN/USAF strike into Libya in 1986. While the "joint" inclusion of the Air Force was necessary to strike all of the desired targets, many viewed the decision as political. As before, much of the post-strike debate centered more on service politics than on warfighting capabilities. But in that same year, Congress would pass legislation creating a military command structure that would, by law, put warfighting capabilities ahead of service politics.

The Enhanced Role of the CINC. The Goldwater-Nichols Defense Reorganization Act of 1986 instituted sweeping changes in the US military command structure, placing the lion's share of the authority and responsibility for the conduct of US military operations into the hands of the CINCs. "Jointness" was now mandated by law. Goldwater-Nichols stated that it was the intent of Congress to "place clear responsibility on the commanders of the unified and specified commands for the accomplishment of missions assigned."<sup>10</sup> In carrying out these missions, CINCs are charged with the responsibilities of assigning missions and tasks and allocating resources and forces accordingly.<sup>11</sup> In Joint Pub 1, the Chairman writes that to carry out these responsibilities properly CINCs must "not only have mastered the essentials of their own service capability, but also must understand the fundamentals of combat power represented by the other Services."<sup>12</sup> It follows that the CINC must understand not only his own service doctrine, but the doctrine of the services whose components he may employ in war. Hence, the non-Navy CINC or Joint Force Commander who commands forces that include aircraft carriers or carrier based aircraft should understand Navy doctrine for employment of those forces.

Navy Doctrine. For the Navy, however, service doctrine presents a problem. Unlike all of the other DOD services, the Navy has no single source, service generated doctrine that the CINC can refer to for employment of naval forces. The publication which comes closest to delineating the "fundamental principles" referred to in Joint Pub 1 is Naval Warfare Publication (NWP) 1, Strategic Concepts of the U.S. Navy. This document is 14 years old. It does not deal with employment of the force, but it does discuss the characteristics of, and requirements for, naval power. As such, it comes closest to being the equivalent of the other services' doctrine statements and is the foundation for the Navy's Composite Warfare Commander (CWC) concept.

Warfare Tasks. In NWP 1, the Navy's basic missions are defined as sea control and power projection.<sup>13</sup> NWP 1 sets forth several advantages of naval forces, to include:

1. Political flexibility. The capability to operate without foreign permission.
2. Employment flexibility. The capability to employ forces as desired. For example, no host nation restrictions as to the types of weapons used or targets struck.
3. Mobility.
4. Readiness to conduct sustained operations on arrival.
5. Naval presence. The capability to make US presence known in crises short of conflict.<sup>14</sup>

In addition to the advantages NWP 1 credits to all naval forces, individual platforms are cited as having capabilities in certain fundamental and supporting warfare tasks. Pursuant to this discussion, the carrier is specifically designated as having "major capability" in the following fundamental warfare tasks:

1. Antiair Warfare (AAW). To include air superiority and air defense.

2. Antisubmarine Warfare (ASW). To deny the enemy the effective use of his submarines in distant and close operations.

3. Anti-Surface Ship Warfare (ASUW). To deny the enemy the effective use of his surface ships and cargo carrying capacity in distant and close operations.

4. Strike Warfare (STW). The destruction or neutralization of enemy targets ashore.

5. Amphibious Warfare (AMW). To conduct close air support in support of amphibious operations.

6. Mine Warfare (MIW). To conduct offensive aircraft mine-laying operations.

Carriers are also designated as having "major capability" in each of the following supporting warfare tasks:

1. Ocean Surveillance.

2. Intelligence (INT), to include imagery and reconnaissance (RECCE).

3. Command, Control and Communications (C3), to allow forces to operate on a coordinated basis.

4. Electronic Warfare (EW) to exploit the electromagnetic spectrum.

5. Logistics.<sup>15</sup>

Finally, NWP 1 makes two additional statements that are worth highlighting. The first is that "the carrier's complement of aircraft can be adapted on short notice...to accomplish the prescribed tasking."<sup>16</sup> This statement is important because it can be misleading. It implies, especially to the officer not familiar with carrier operations, that the air wing can be rapidly tailored to meet emergent tasking. This is not the case. The carrier/air wing "team" is essentially a "come as you are" element, trained to work in a multitude of missions, but trained nonetheless as a team. While small modifications in the air wing complement

are possible, major changes on short notice, especially during deployment, are not.

The second statement is that "each included battle group (in the battle force) must be able to perform effectively the full spectrum of at-sea offensive warfare tasks."<sup>17</sup> There are no more specialized aircraft carriers like the World War II escort (or "jeep") carriers or the ASW carriers that were decommissioned in the 70's. The modern carrier is a "jack of all trades", with the most important trade being preservation of self. The consequences are significant. The carrier's complement of aircraft is a compromise, necessitated by the doctrinal requirement to "go it alone" against all threats. As a result, in a theater where all threats are not present, that compliment may not be optimized for the mission at hand.

#### A DOCTRINAL PERSPECTIVE

BGEN "Buster" Glossen, the director of USCENTAF's air planning staff, had unpleasant memories of his last war. "Chuck (Horner) and I remember flying in Vietnam with less than a full load of weapons," he would say. "You can bet we're not going to let that happen again."<sup>18</sup> Much to their credit, they did not. But the "quantity equals quality" mentality that put the Air Force and Navy into a sortie race in Vietnam is now driving the post-war analysis of Desert Storm. It was still a "bean counting" kind of war and, unfortunately for the Navy, the Air Force had most of the beans.

Most analyses of the air campaign are comparative, zeroing in on some particular quantifiable factor, such as sorties flown. Other typical measures of effectiveness include numbers of weapons or tonnage dropped. But numbers seldom tell the complete story and are easily manipulated. One precision guided weapon in the right air shaft may be more effective than a fully loaded B-52. Four F-117s may replace a 30 plane non-stealth strike package. And how do you measure

the value of a force that, while not actually engaging in combat, fixes enemy troops, allowing them to be outmaneuvered and defeated in detail? Additionally, the characteristics of a given theater may lend themselves to the capabilities of one service over another (how many pro-Navy Desert Storm articles have been written starting out with the line "next time, when there are no land bases..."?)

There is a better method to evaluate performance than by adding up columns of numbers. Basic Aerospace Doctrine of the United States Air Force states that "Doctrine is...a standard against which to measure our efforts."<sup>19</sup> Only when performance is measured against fundamental doctrinal missions do we get a clear picture of true capabilities. It is those capabilities that the CINC needs at his fingertips to properly allocate and employ forces.

In evaluating the carriers' performance and contribution to the Desert Storm campaign strategy, three questions must be answered:

1. Which doctrinal capabilities were validated?
2. Were these capabilities unique to the carrier?
3. If not, what effect would it have had on the campaign to provide these capabilities from other forces in theater?

These questions, when answered, will give a better qualitative picture of carrier performance than will a quantitative matching of statistics.

## CHAPTER III

### A DOCTRINAL EVALUATION

Regardless of the counts used to influence the debate on the proportional contribution of carrier-based versus land-based aircraft, carrier aircraft were less effective in the aggregate than their land based counterparts for the missions required by this air campaign.<sup>1</sup>

The Gulf War: Military Lessons Learned  
The Center for Strategic and International Studies

The Naval Advantage? As noted earlier, NTP 1 asserts that naval forces have the advantage of political flexibility, employment flexibility, mobility, readiness to conduct sustained operations on arrival, and naval presence. Desert Shield/Desert Storm validated each of these advantages

When Iraqi forces crossed the border into Kuwait on August 2, initiating Operation Desert Shield the USS Eisenhower (CVN-69) was on station in the Mediterranean Sea, while the USS Independence (CV-60) was steaming in the Indian Ocean. The immediate military objectives of Operation Desert Shield were to establish a "defensive capability in theater to deter Saddam Hussein from further aggression, to build and integrate Coalition forces, to enforce sanctions, to defend Saudi Arabia, and to defeat further Iraqi advances, if required."<sup>2</sup> At the early stages of the crisis, only carrier based assets could achieve any of these goals (B-52 bombers from the US would have had a 26 hour round trip flight, and at the early stages, there was no assurance that an ally would have provided closer basing.)<sup>3</sup> By the time President Bush decided to deploy additional forces to Southwest Asia on August 7, Independence was in position to launch attacks into Kuwait from the North Arabian Sea.<sup>4</sup> By the next day, Eisenhower was in launch position in the Red Sea. Whether or not the threat of attack from carrier based aircraft stopped

Saddam from continuing his march into Saudi Arabia is unknowable, and it is doubtful that carrier air alone could have turned the tide if he had. The carriers were, however, a force in place, demonstrating American resolve and acting as a tripwire force.

Mobility was evident not only in the speed with which carrier aviation arrived on the scene, but in its employment after the war started. Navy crews, who planned their initial air strikes from the Gulf of Oman, soon found themselves in the Arabian Gulf, launching from more and more northerly positions as the Iraqi naval, air and mine threats were eliminated. When battlefield preparation in the Kuwaiti Theater of Operations (KTO) moved to the forefront in the CINC's priorities, he had the option to increase his striking power in that area by shifting the USS America (CV-66) from the Red Sea to the Arabian Gulf. These actions are graphic examples of the operational flexibility afforded by carrier mobility. Imagine how much sooner the air war might have ended if, after air supremacy had been attained over Iraq, all coalition airfields could have been moved one hundred miles closer to their the primary target areas, as were the Gulf carriers.

Readiness to conduct sustained operations on arrival was perhaps best demonstrated by the USS Ranger (CV-61). Ranger left San Diego on December 8, steaming directly to the Arabian Gulf with only a five day layover in the Philippines for resupply. Ranger steamed through the Straits of Hormuz on the morning of 15 January and launched her first air strikes into Iraq less than 36 hours later. Ranger's air wing would fly for 41 of the 43 days of Operation Desert Storm.

Naval presence, political flexibility and employment flexibility are difficult factors to quantify. However, it is likely that the US ability to strike at will from the sea, irregardless of the Saudi decision on admittance of US forces, was a factor in their decision to allow us into the country. Had that capability not been in the theater, the military



threat poised on their border may have forced the Saudis to accept the Iraqi invasion of Kuwait as a fait accompli.<sup>5</sup>

Thus the basic naval advantages, as espoused by NWP 1, were soundly validated. The CINC used them all during the campaign, and they played a significant role in his ability to fulfill his mission.

#### FUNDAMENTAL WARFARE TASKS

Antiair Warfare. On paper, the Iraqi air force was the most powerful in the Arab world. It possessed state of the art aircraft, such as the Soviet MiG-29 and the French Mirage F-1. The Mirage/Exocet combination that severely damaged the USS Stark in 1987 undoubtedly weighed heavily on the minds of US Naval leaders as the carriers moved into the Gulf.

The defensive antiair umbrella in the Arabian Gulf was composed of missile-capable surface ships and carrier based fighter aircraft. Throughout the war these over water Gulf combat air patrol (CAP) stations were filled, and as the war progressed (but after Iraqi air activity had essentially ceased), Navy CAP were also stationed over land.

The classification of Gulf CAP as "fleet defense" plagued the Navy, fueling the argument that carrier forces spend too much time protecting themselves and not enough actively carrying the fight to the enemy. This perception was magnified by the Air Tasking Order (ATO) process and post-war sortie counting. Coalition over land CAP, including CAP purely in defense of land bases, was scheduled via the ATO. These sorties appeared as campaign combat sorties in CENTCOM statistics. F-14 and F/A-18 CAP over the Arabian Gulf were not scheduled via the ATO. These sorties were viewed not as combat, but as "fleet defense", purely to protect the carriers. The coast line remained an artificial boundary between combat and non-combat, even after the air war was clearly over. This view is extremely short sighted.

Labeling Arabian Gulf CAP as superfluous ignores two important facts. First, the Arabian Gulf made up the coalition's entire right flank. CAP over the Gulf, in addition to protecting US and coalition shipping, provided air defense for ports in eastern Saudi Arabia. If the carriers did not provide that CAP, it would have been provided by Air Force assets, drawing them away from service elsewhere in the theater (rules of engagement (ROE) restrictions would have made surface-ship-only air defense schemes untenable.) Second, it ignores the ever present threat from Iran. As Iraqi air force units moved to Iran (113 tactical combat aircraft, not including commercial, transport and C3I platforms)<sup>6</sup> they continued to constitute a significant threat to Gulf forces. Iraqi Mirage F-1's had the capability to target and launch without leaving Iranian airspace. It was a potential threat that, despite Iranian assurances, could not reasonably be ignored.

Offensively, the air-to-air war unquestionably belonged to the Air Force. Only three Iraqi aircraft were shot down by naval forces, two by Red Sea F/A-18's on the first day of the war and one (a helicopter) by an Arabian Gulf F-14 while on an over land CAP station. In the one instance where Iraqi aircraft ventured over the Gulf, they were intercepted and shot down by Saudi F-15s vectored by AWACS from an over land CAP. The impression that the USAF controlled JFACC and USAF dictated fighter ROE shut Navy fighters out of the brief air war remains a contentious issue. Conversely, had the Navy attempted to integrate "fleet defense" sorties into the ATO system, rather than fighting it every inch of the way, much of the squabbling might have been avoided.

The fairest evaluation of carrier performance in the AAW task is to say that it was not sufficiently tested. It contributed to the campaign in that it provided forces that would have had to come from elsewhere in theater. In light of the weak response of the Iraqi Air Force, this contribution was far from crucial.

Antisubmarine Warfare. While ASW was not a factor in the campaign, every carrier (except Midway) carried a squadron of S-3s on its already overcrowded flight deck. While these aircraft were put to other uses (surface anti-shipping patrols, logistics support, tanker support) it highlights the weakness in NTP-1's assertion that the air wing can be easily tailored for the task at hand. The Navy did not need the number of S-3's that it had, but it had them anyway. Thus, while the ASW warfare task was not tested, a case can be made that the inability to replace the S-3 with additional strike assets actually made the doctrinal ASW task requirement, in this theater, a minor liability. A number of third world nations have or are acquiring a respectable conventional submarine capability. Our next conflict may see this capability take on much greater significance.

Anti-Surface Ship Warfare. The Iraqi naval surface force was small, its largest units being a training frigate and several Polnocny class LST's. They did, however, have a capable force of small patrol boats including the Soviet built Osa, capable of firing the SSN-II Styx missile, as well as captured Kuwaiti TNC-45 and FPB-53 patrol craft. The Iraqis also had several craft, in addition to the patrol boats, that were capable of laying mines.

Carrier based aircraft conducted 65 percent of the attacks made on Iraqi vessels during the war. By February 2, the Iraqi Navy was rendered combat ineffective.<sup>7</sup> The ASUW combat problem was directed from the USS Ranger using carrier based E-2's as the primary command and control platform.

While not a direct threat to forces ashore, the Iraqi fleet most definitely posed a threat to shipping and amphibious forces in the Gulf. The rapid elimination of this threat was a necessity and carrier based assets were optimum for this mission. While Air Force aircraft could have performed this mission under the direction of non-carrier surface units, this is an area where navy ships and aircrew train routinely, understand the common ROE and are a more

effective force. Navy E-2 aircraft are more proficient at the ASUW role than is the AWACS, which is optimized for over land air-to-air operations. Additionally, the use of an AWACS in this role would have necessitated movement of an over land AWACS station to cover the Northern Arabian Gulf. A significant number of sorties were expended in the ASUW effort (I have been unable to ascertain a definitive number) that would have removed bombers from the air campaign had Air Force units been used. Ironically, despite the fact that these sorties often engaged armed enemy vessels, they were scheduled outside of the ATO and thus carried the "fleet defense" (read "non-combat") designation. As with the fighter issue, this clouded the initial reporting of combat related sorties.

The ASUW task was performed effectively. Although the Iraqi Navy was not the equal of any major naval power, it was representative of many third world navies we may expect to confront in future hostilities.<sup>8</sup> One only has to remember how much havoc a much less capable force of Iranian speedboats wreaked inside the Arabian Gulf to appreciate the degree of the problem. The fact that the Iraqi navy was a non-issue in the war is testament to the carriers' capability to rapidly eliminate this threat. While measuring the contribution of the ASUW effort to the campaign is problematic, there is little doubt that the assumption of this mission by the Air Force would have imposed a significant additional burden on coalition air assets.

Strike Warfare. There can be no question that air power, primarily strike air power, played a greater role in Operation Desert Storm than in any other conflict in history. The unique combination of a desert environment, stationary enemy forces, lack of air opposition and a host nation with massive amounts of unused military airfield capacity presented an opportunity to use air power to its maximum potential.

While the numbers war continues in the press, most studies conclude that the Navy flew a percentage of strike sorties roughly in proportion to the number of strike aircraft

it had in theater. Accurate statistics are difficult to determine, since service differences in mission terminology make direct comparisons difficult (For example, the Navy uses AAW for both Offensive Counter Air and Defensive Counter Air, while differentiating between land (STW) and maritime (ASUW) strike.)

There is no question that the Air Force had the superior strike capability in the theater, both in quantity and in quality (see table below).

Table 1

Aircraft in Theater Capable of Dropping Bombs

<u>USAF</u>	
F-15E*	48
F-16	216
F-117A	45
F-111*	120
B-52	80
A-10	132
Total	641
All Weather	168

<u>USN</u>	
F/A-18	100
A-6E*	95
A-7E	24
Total	219
All Weather	95

\* True All Weather Capable/Laser Designator Capable. (Not all F-15E were fitted with LANTIRN for Laser Guided Bomb capability.) Data for January 1991.

Source: Norman Friedman, Desert Victory: The War for Kuwait (Annapolis: Naval Institute Press, 1991), pp. 301-302.

Although outclassed by the USAF from a quantitative standpoint, the carriers brought several much needed strike capabilities to the theater. During Desert Storm, Iraq

experienced its worst weather in 14 years, causing the cancellation of 40% of all scheduled attack sorties during the first 10 days of the war.<sup>9</sup> When weather becomes a factor, the Navy contribution to aircraft capable of finding and hitting the target in any weather goes up dramatically. This contribution holds for the delivery of laser guided bombs as well. A-6s with LGBs became night workhorses in the tank killing campaign pursued in preparation for the ground war. These are factors that statistics alone do not catch.

Another theater strike capability that lay primarily in Navy hands was anti-radiation missile (ARM) capability. USAF ARM capability resides in the F-4G Wild Weasel aircraft, of which there were only 48 in theater.<sup>10</sup> By contrast, all Navy/USMC F/A-18s and several squadrons of A-6s, A-7s, and EA-6Bs were capable of firing the High Speed Anti-Radiation Missile (HARM). 80% of the HARMs fired during the war were launched from Navy or USMC aircraft.<sup>11</sup> Much of the inactivity of the Iraqi air defense system can be credited to these missiles.

When viewed from our doctrinal approach, there is no question that in STW, Navy strike capability met expectations. Even the lowest sources found in the research for this paper give the Navy credit for over 7,000 "bomb dropping" sorties (not including combat support, such as ARM, and ECM.) A three to five day extension of the air war resulted from diverting 1500 sorties from the strategic campaign to SCUD hunting.<sup>12</sup> Using this as a ruler, removal of carrier strike assets from the theater could have added as much as two weeks to the air campaign (exclusive of sorties that would have been required for the ASW effort.)

Amphibious Warfare. The amphibious "feint" to tie up forces in the KTO has been discussed extensively in other publications. The reader can draw his own conclusions as to whether the assault was ever more than a feint and if it would have succeeded had it been executed. However, the role of the carrier in amphibious warfare is to provide air superiority

and close air support in the Amphibious Objective Area (AOA). The amphibious threat would not have been credible without carrier air available to support the landing. When coalition forces overran the Iraqi military headquarters in Kuwait City, their situation boards showed their defenses pointing seaward.<sup>13</sup> To Iraq, the amphibious threat was real and provided the CINC with a valuable trump card.

Mine Warfare. On the third night of the war, A-6 aircraft mined the Iraqi naval base at Umm Qasr to prevent vessels at the piers from escaping to sea. Based on the complete domination of the Northern Arabian Gulf later demonstrated by naval air and surface units, it is doubtful that this mission significantly affected the outcome of the ASUW effort. The only USAF aircraft with mining capability is the B-52.

#### SUPPORTING WARFARE TASKS

Intelligence. The carrier brought a valuable asset into the Gulf in the F-14, equipped with the Tactical Air Reconnaissance Pod (TARPS). Each F-14 capable carrier (all except Midway) carried four of these aircraft. Total USAF tactical recce assets in theater were 18 RF-4s.<sup>14</sup> Tactical recce assets were a theater wide deficiency.

Command, Control and Communications. While connectivity among the four carriers and other Gulf naval forces was not a problem, connectivity with the CINC was. NWP 1 states that the C3 system must "ensure that...unified commanders...are able to...receive sufficient, accurate and timely information on which to base their decisions and have available the means to communicate these decisions to the forces involved." In Desert Storm, this did not happen. Two major problem areas stand out, lack of inter-staff coordination and the ATO.

COMUSNAVCENT, who remained dual-hatted as COMSEVENTHFLEET during the war, elected to keep his headquarters at sea on the

flag ship USS Blue Ridge. While this may have facilitated control of fleet units, it created difficulties in the joint command structure. In Riyadh, COMCARGRU THREE (an aviator O-7) assumed duties as NAVCENT Rear, responsible for interface with the CINC, JFACC and other component commanders. In November he was replaced by COMCRUDESGRU FIVE (an O-7 Surface warfare officer.) As a result, during the most significant air war in history, the Navy had no flag level aviation officer in a position to directly influence the use of naval aviation assets. For comparison, The Air Force had over 20 General Officers in Riyadh and six on the JFACC staff.<sup>15</sup> NAVCENT Main's location at sea prevented him from effectively influencing the development of warfighting strategy and procedures, while his staff was unable to directly interact with that of the CINC, JFACC and the other component commanders. Inadequate ship-to-shore communications links impaired staff efficiency, especially when trying to work time sensitive issues.<sup>16</sup>

The ATO was the daily air schedule for all over land sorties. It routinely ran several hundred pages: one day it was 830. A document of this size was impossible to transmit via normal Navy communications channels. It was necessary to fly the ATO to the carriers daily by helicopter or S-3, often to arrive only hours before the first strike of the day was due to launch.<sup>17</sup> This could leave strike leaders praying that there would be no last minute changes to an otherwise carefully thought out strike plan. The JFACC used the Computer Aided Flight Management System (CAFMS) to transmit the ATO to units ashore, and those units in turn could initiate changes to their tasking through the same system. No compatible system exists on the carrier. For Navy strike leaders, changing an ATO assignment could be a painful process, involving lengthy secure radio communications to the Blue Ridge or Riyadh. Were a naval officer to be assigned as the JFACC, there is no equivalent force coordination system in



current Navy communications architecture, even for the coordination of flight operations among multiple carriers.<sup>18</sup>

Doctrinally, C3 should be an area of concern for Navy operational planners. Whereas intra-fleet communications capability is critical, communications with the CINC, as well as other component commanders and their staffs, are equally critical when operating in the joint environment. Adequate representation on the CINC's staff, in terms of numbers, warfare specialties and seniority, is essential. Staff arrangements must be reevaluated and the CWC organization examined with an eye to interoperability.

Electronic Warfare. Navy EA-6Bs were heavily tasked for both Navy and combined strikes. The USAF had a total of only 18 EF-111s in country. The Navy's 26 EA-6Bs<sup>19</sup> rapidly became the electronic support aircraft of choice for coalition air forces, either by folding their target times into those of Navy strikes or specifically tasking EA-6B support via the ATO. According to RADM Riley Mixson, commander of the Red Sea carrier force, EA-6Bs provided "the lion's share of Iraqi defense suppression in support of coalition strategic strikes."<sup>20</sup>

## CHAPTER IV

### CONCLUSION

Synergy results when the elements of the joint force are so effectively employed that their total military impact exceeds the sum of their individual contributions.<sup>1</sup>

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At the operational level of war, it no longer makes any sense to view the services as separate entities. Desert Shield and Desert Storm have demonstrated that the effective application of military force stems not from the individual services, but from the aggregate power their combined capabilities bring to bear. In the aftermath of conflict, the lessons learned must center on how to make the joint force effort even more effective. Analysis must focus on the qualitative as well as the quantitative. A qualitative approach has been the focus of this paper.

When viewed from the doctrinal perspective, there are several significant lessons that joint force commanders can apply to planning for conflict in their areas of responsibility:

1. The doctrinal advantages of naval power are real. The ability to rapidly respond in force with the forward deployed carrier battle group, coupled with the capability it gives the CINC to respond with a broad range of options, is unmatched by any other US military force.

2. The carrier brings tremendous flexibility to a crisis. Carrier forces possess the ability to project power ashore in self sustaining packages. Operations in the Gulf proved that large carrier battle forces, under the proper conditions, can be effectively coordinated and operated in confined waters. Carrier forces, in combination with

amphibious forces, can effectively fix the enemy, while giving the CINC the options of deception, reinforcement or assault. Carrier forces may make significant contributions of assets in critically short areas, such as ARM support, EW and RECCE. The doctrinal requirement that the carrier be prepared for all missions ensures that it will have some measure of capability in almost any scenario, and across the full spectrum of conflict. In areas with no host nation support, carrier forces may be the only viable tool the CINC has at his disposal.

3. Conversely, the power that carrier forces bring to the theater has significant limitations. The carrier, doctrine bound to have capability against all threats, is more than a platform for strike aircraft. If certain capabilities are not critical in a particular theater, carrier forces will not be optimized for the task at hand. The capability to alter the aircraft mix is very limited. With all carrier assets concentrated in a single vessel, defense of the ship will always remain a priority. This may limit the capability to project power ashore, especially against a sophisticated threat. Long range, all weather carrier attack aircraft are limited in numbers. The capability to conduct around the clock operations to bring constant pressure to bear on the enemy requires a multiple carrier task force, and on days when a carrier must stand down, all of its assets are lost to the campaign. The limited numbers of aircraft on the carrier will limit its scope of operation and may drive operational level strategy. For example, carrier aircraft could not have gone to Baghdad on the first night in significant numbers.

4. Command relationships must be specifically delineated and clearly defined. Unity of effort depends on component commanders making best use of, not jealously guarding, their assets. Senior staffs must be located where they can freely interface and the officers assigned must be of commensurate

rank and experience to do their jobs effectively. If the JFACC is to control forces ashore and afloat, an effective system for total air forces employment is an absolute necessity.

Finally, Desert Shield and Desert Storm highlight the need for formalized Navy doctrine that is in consonance with JCS doctrine. The Navy must evaluate how its Composite Warfare Commander concept for control of forces meshes with JCS doctrine for the conduct of joint operations. Is it still necessary for the carrier to be a "jack of all trades?" Do all carrier air wing configurations have to remain the same? The answers to these questions, and the degree to which a "go it alone " capability is not translated into a "go it alone" attitude, will have significant impact on the carrier's contribution to future joint operations.

## NOTES

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5 Richard P. Hallion, The Naval Air War in Korea (Baltimore: The Nautical and Aviation Publishing Co. of America, 1986), p. 41, 47.

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